

SEQUENCE LISTING

<110> McIntosh, J. Michael
 Olivera, Baldomero M.
 Cruz, Lourdes J.
 Corpuz, Gloria P.
 Jones, Robert M.
 Garrett, James E.

<120> Conotoxin Peptides

<130> Conotoxin Peptides

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<150> US 60/173,298
 <151> 1999-12-28

<150> US 60/118,381
 <151> 1999-01-29

<150> US 09/493,143
 <151> 2000-01-28

<160> 20

<170> PatentIn Ver. 2.0

<210> 1
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:generic
 conotoxin peptide sequence

<220>
 <221> PEPTIDE
 <222> (1)..(2)
 <223> Xaa at residue 1 is des-Xaa, Asn, Gln or pyro-Glu;
 Xaa at residue 2 is des-Xaa, Gly, Ala, Glu, gamma-
 carboxy-Glu, Asp, Asn, Ser, Thr, g-Asn (where g is
 glycosylation), g-Ser or g-Thr;

<220>
 <221> PEPTIDE
 <222> (3)..(7)
 <223> Xaa at residue 3 is Val, Ala, Gly, Leu, Ile, Ser,
 Thr, g-Asn, g-Ser or g-Thr; Xaa at residue is Phe,
 Tyr, meta-Tyr, ortho-Tyr, nor-Tyr, mono-halo-Tyr,
 di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr,

<220>
 <221> PEPTIDE
 <222> (7)
 <223> nitro-Tyr, Trp (D or L), neo-Trp, halo-Trp (D or
 L), any synthetic aromatic amino acid, an
 aliphatic amino acid bearing linear or branched
 saturated hydrocarbon chains such as Leu (D or L),
 Ile and

<220>

$\langle 210 \rangle$ 2

<211> 13
 <212> PRT
 <213> Conus marmoreus

<220>
 <221> PEPTIDE
 <222> (7)..(8)
 <223> Xaa at residue 7 is Tyr, mono-halo-Tyr,
 di-halo-Tyr, O-sulpho-Tyr, O-Phospho-Tyr or
 nitro-Tyr; Xaa at residue 8 is Lys, N-methyl-Lys,
 N,N-dimethyl-Lys or N,N,N-trimethyl Lys

<220>
 <221> PEPTIDE
 <222> (12)
 <223> Xaa at residue 12 is Pro or hydroxy-Pro.

<400> 2
 Asn Gly Val Cys Cys Gly Xaa Xaa Leu Cys His Xaa Cys
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<210> 3
 <211> 12
 <212> PRT
 <213> Conus marmoreus

<220>
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 <222> (6)..(7)
 <223> Xaa at residue 6 is Tyr, mono-halo-Tyr,
 di-halo-Tyr, O-sulpho-Tyr, O-Phospho-Tyr or
 nitro-Tyr; Xaa at residue 7 is Lys, N-methyl-Lys,
 N,N-dimethyl-Lys or N,N,N-trimethyl Lys

<220>
 <221> PEPTIDE
 <222> (11)
 <223> Xaa at residue 11 is Pro or hydroxy-Pro

<400> 3
 Gly Val Cys Cys Gly Xaa Xaa Leu Cys His Xaa Cys
 1 5 10

<210> 4
 <211> 12
 <212> PRT
 <213> Unknown

<220>
 <223> Description of Unknown Organism:unknown Conus
 species

<220>
 <221> PEPTIDE
 <222> (6)..(7)
 <223> Xaa at residue 6 is Tyr, mono-halo-Tyr,
 di-halo-Tyr, O-sulpho-Tyr, O-Phospho-Tyr or
 nitro-Tyr; Xaa at residue 8 is Lys, N-methyl-Lys,
 N,N-dimethyl-Lys or N,N,N-trimethyl Lys.

<220>
 <221> PEPTIDE

Ser Thr Cys Cys Gly Phe Xaa Met Cys Ile Xaa Cys Arg
1 5 10

[illegible]

<400> 13																
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Met	Arg	Cys	Leu	Pro	Val	Leu	Ile	Ile	Leu	Leu	Leu	Leu	Thr	Ala	Ser	
1				5					10					15		
gca	cct	ggc	gtt	gat	gtc	cta	ccg	aag	acc	gaa	gat	gat	gtg	ccc	ctg	96
Ala	Pro	Gly	Val	Asp	Val	Leu	Pro	Lys	Thr	Glu	Asp	Asp	Val	Pro	Leu	
			20					25					30			

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<213> Conus bandanus
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Lys Arg Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
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<212> DNA
<213> Conus textile
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gga cct agc gtt gat gcc caa ctg aag acc aaa gat gat gtg ccc ctg 96
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
20 25 30

tca tct ttc cga gat cat gca aag agt acc cta cga aga ctt cag gac 144
Ser Ser Phe Arg Asp His Ala Lys Ser Thr Leu Arg Arg Leu Gln Asp
35 40 45

aaa cag act tgc tgt ggc tat agg atg tgt gtt cct tgt ggt 186
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<210> 16
<211> 62
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<213> Conus textile
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<400> 16
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 Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
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 Ser Ser Phe Arg Asp His Ala Lys Ser Thr Leu Arg Arg Leu Gln Asp
 35 40 45
 Lys Gln Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
 50 55 60

<210> 17
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 <212> DNA
 <213> Conus pennaceus

<220>
 <221> CDS
 <222> (1)..(189)

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 gca cct agc gtt gat gcc aaa gtt cat ctg aag acc aaa ggt gat ggg 96
 Ala Pro Ser Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
 20 25 30
 ccc ctg tca tct ttc cga gat aat gca aag agt acc cta caa aga ctt 144
 Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
 35 40 45
 cag gac aaa agc act tgc tgt ggc ttt aag atg tgt att cct tgt 189
 Gln Asp Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys
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 cgttaaccag catgaaggat cc 211

<210> 18
 <211> 63
 <212> PRT
 <213> Conus pennaceus

<400> 18
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 20 25 30
 Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
 35 40 45
 Gln Asp Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys
 50 55 60

<210> 19
 <211> 24

CCDS: F02665.1

<212> DNA
<213> Conus marmoreus

<400> 19
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24

<210> 20
<211> 22
<212> DNA
<213> Conus marmoreus

<400> 20
ctggatcctt catgctggtt aa

22

009250-1020350